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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/761,017	01/20/2004	Kaiji Nonaka	9281-4750	3123

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EXAMINER	
WANG, JIN CHENG	
ART UNIT	PAPER NUMBER
2672	

DATE MAILED: 11/15/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/761,017	NONAKA, KAIJI	
	Examiner	Art Unit	
	Jin-Cheng Wang	2672	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *08 September 2005*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-6* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-6* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Response to Amendment

Applicant's submission filed on 9/8/2005 has been entered. Claims 1-6 are pending in the application.

Response to Arguments

Applicant's arguments filed September 8, 2005 have been fully considered but are moot in view of the new ground(s) of rejection of the claims 1-6 based on Rosenberg U.S. Patent No. 5,825,308 (hereinafter Rosenberg) in view of Watanabe et al. U.S. Patent No. 6,285,347 (hereinafter Watanabe).

As set forth in the present Office Action, Rosenberg discloses that, a force magnitude and direction that the user exerts on the interface device is sensed and input to the computer to be used in the manipulation and interaction of the computer environment wherein the isometric controllers such as sensors spheres typically include pressure sensors overlaid on their surface to detect input forces from the user's touch; column 36, lines 50-63. Rosenberg discloses that, a visual display of the deviation may be useful to indicate to the user the magnitude of "force" that is being input by the user in isometric mode. A user will be able to see the deviation as a cursor is moved against a surface, thus indicating the magnitude of the input; column 44, lines 43-61. Finally, Rosenberg discloses that, **a restoring force is determined based on the deviation found** and any other applicable conditions. A restoring force is applied to the user object as well as sensed by the user through feedback because the user feels restoring or spring forces on the

object which the user can utilize to provide isometric or elastic input; see column 10, lines 20-25 and column 47, lines 8-46.

Claim Rejections - 35 USC § 102

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-3 are rejected under 35 U.S.C. 102(b) as being anticipated by Rosenberg U.S. Patent No. 5,825,308 (hereinafter Rosenberg).

Claim 1:

Rosenberg teaches an image information display apparatus comprising:

A display unit for displaying image data; an input unit for performing scrolling of the image data displayed on the display unit; and a control unit for controlling the display unit and the input unit (*e.g., column 4, lines 34-57; column 7, lines 26-49; column 10, lines 6-24; column 12, lines 20-45; column 13, lines 59-67; column 14, lines 1-41; column 34, lines 46-55; column 35, lines 5-21; column 36, lines 50-60; column 39, lines 35-67; column 41, lines 66-67 and column 42, lines 1-67; column 43, lines 1-67; column 44, lines 1-51; column 46, lines 45-55; column 47, lines 8-46*),

wherein the input unit has a manipulation unit manipulated by an operator, a position sensor for detecting a manipulation state of the manipulation unit, and an actuator for supplying force-feedback to the manipulation unit, wherein the image data includes a prescribed point (*e.g., column 4, lines 34-57; column 7, lines 26-49; column 10, lines 6-24; column 12, lines 20-45; column 13, lines 59-67; column 14, lines 1-41; column 34, lines 46-55; column 35, lines 5-21;*

column 36, lines 50-60; column 39, lines 35-67; column 41, lines 66-67 and column 42, lines 1-67; column 43, lines 1-67; column 44, lines 1-51; column 46, lines 45-55; column 47, lines 8-46),

Wherein the control unit calculates an amount and direction of manipulation of the manipulation unit on the basis of positional signals output from the position sensor, and performs the scrolling of the image data on the basis the amount and direction of manipulation of the manipulation unit obtained (*e.g., column 4, lines 34-57; column 7, lines 26-49; column 10, lines 6-24; column 12, lines 20-45; column 13, lines 59-67; column 14, lines 1-41; column 34, lines 46-55; column 35, lines 5-21; column 36, lines 50-60; column 39, lines 35-67; column 41, lines 66-67 and column 42, lines 1-67; column 43, lines 1-67; column 44, lines 1-51; column 46, lines 45-55; column 47, lines 8-46*), and

wherein in the course of scrolling the image data (*e.g., the document image data or a text in a window; column 35, lines 4-10 and column 42, lines 40-50*), the control unit (*e.g., a local microprocessor in a host computer; column 42, lines 18-38*) calculates the deviation between a direction from reference point in the display unit to the prescribed point in the image data (*e.g., based on the deviations and/or direction from the local origin; column 43, lines 65-66*) and the direction of manipulation of the manipulation unit, and controls drive of the actuator to decrease the force-feedback to be supplied the manipulation unit with a decrease in the calculated deviation (*e.g., the force magnitude and direction that the user exerts on the interface device is sensed and input to the computer to be used in the manipulation and interaction of the computer environment wherein the isometric controllers such as sensors spheres typically include pressure sensors overlaid on their surface to detect input forces from the user's touch; column 36, lines*

*50-63; A visual display of the deviation may be useful to indicate to the user the magnitude of "force" that is being input by the user in isometric mode. A user will be able to see the deviation as a cursor is moved against a surface, thus indicating the magnitude of the input; column 44, lines 43-61; **A restoring force is determined based on the deviation found** and any other applicable conditions. A restoring force is applied to the user object as well as sensed by the user through feedback because the user feels restoring or spring forces on the object which the user can utilize to provide isometric or elastic input; see column 10, lines 20-25 and column 47, lines 8-46. column 4, lines 34-57; column 7, lines 26-49; column 10, lines 6-24; column 12, lines 20-45; column 13, lines 59-67; column 14, lines 1-41; column 34, lines 46-55; column 35, lines 5-21; column 36, lines 50-60; column 39, lines 35-67; column 41, lines 66-67 and column 42, lines 1-67; column 43, lines 1-67; column 44, lines 1-51; column 46, lines 45-55; column 47, lines 8-46).*

Claims 2-3:

Rosenberg further discloses that the control unit calculates a distance from a reference point in the image data corresponding to the reference point in the display unit to the prescribed point, and controls the drive of the actuator to supply to the manipulation unit an appropriate force-feedback corresponding to the calculated distance to the prescribed point and that the control unit calculates the variation of a distance from a reference point in the image data corresponding to the reference point in the display unit to the prescribed point, and controls the drive of the actuator to supply to the manipulation unit an appropriate force-feedback

corresponding to the calculated variation of the distance to the prescribed point (*e.g., the force magnitude and direction that the user exerts on the interface device is sensed and input to the computer to be used in the manipulation and interaction of the computer environment wherein the isometric controllers such as sensors spheres typically include pressure sensors overlaid on their surface to detect input forces from the user's touch; column 36, lines 50-63; A visual display of the deviation may be useful to indicate to the user the magnitude of "force" that is being input by the user in isometric mode. A user will be able to see the deviation as a cursor is moved against a surface, thus indicating the magnitude of the input; column 44, lines 43-61; **A restoring force is determined based on the deviation found** and any other applicable conditions. A restoring force is applied to the user object as well as sensed by the user through feedback because the user feels restoring or spring forces on the object which the user can utilize to provide isometric or elastic input; see column 10, lines 20-25 and column 47, lines 8-46).*

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 4-6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Rosenberg U.S. Patent No. 5,825,308 (hereinafter Rosenberg) in view of Watanabe et al. U.S. Patent No. 6,285,347 (hereinafter Watanabe).

Claims 4-6:

Rosenberg is silent to the claim limitations set forth in the claims 4-6.

With regards to the claim 4, Watanabe further discloses the prescribed point as a destination point of the map image as specified by the operator scrolling the map image (Watanabe column 5-8).

With regards to the claim 5, Watanabe further discloses the road map image (Watanabe Figs. 3-4).

With regards to the claim 6, Watanabe further discloses the map data is virtual space data expressed two-dimensionally (Watanabe Figs. 3-4).

Moreover, Watanabe discloses supplying feedback information after manipulation of the mouse or the finger on the touch pad on the pointer to indicate the scrolling speed and direction of the digital map when the distance between the start point to an end point relating to the desired direction from the start point to the end point is determined and the speed of the displayed portion of the digital map with regards to the direction of the arrow portion of the pointer is made small when the distance is small. Therefore Watanabe explicitly discloses an actuator such as capacitor sensors (column 4, lines 40-52) to supply feedback (such as the length and direction of the arrow portion) to the manipulation unit using mouse-finger-touch-pad combination (column 6, lines 29-44).

Watanabe discloses that, when the distance between the start point (a reference point) to an end point (a prescribed point) relating to the desired direction from the start point to the end point is determined (i.e., manipulation direction is determined) and the speed of the displayed

portion of the digital map with regards to the direction of the arrow portion of the pointer is made small when the distance is small. It can be seen that Watanabe discloses a direction from a reference point in the display unit to the prescribed point in the image data because the start point is in the display unit and the end point is the desired point in the map image. Watanabe further discloses the direction of manipulation of the manipulation unit because the desired direction of manipulation has been indicated by the operator (column 6, lines 29-44) and the amount and direction of manipulation are determined at the current position of the display reference point to indicate the speed and direction of scrolling (column 6, lines 29-44). Depending upon the length of the distance relating to the desired direction of manipulation indicating the deviation or magnitude of the desired direction from the unit direction of manipulation, the scrolling speed is determined as in proportional to the deviation of the direction vector and the processor allows the actuator to decrease the length of the arrow portion of pointer to supply feedback information to the display unit or the touch pad in combination with the pointer (the manipulation unit because both the touch pad and the pointer have been manipulated via the operator's action; see column 5-8).

Therefore, taking the combined teaching of Watanabe and Rosenberg, it would have been obvious to have modified Rosenberg's document image data or texts in a window to incorporate Watanabe's map image data as document data to be scrolled by the Rosenberg's force feedback device coupled with the host computer system.

Doing so would enable one of the ordinary skill in the art to provide indication to the operator the magnitude or speed or direction of scrolling to be generated on the map image (Watanabe column 5-8).

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jin-Cheng Wang whose telephone number is (571) 272-7665. The examiner can normally be reached on 8:00 - 6:30 (Mon-Thu).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mike Razavi can be reached on (571) 272-7664. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

jcw

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